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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/600,282 | 06/20/2003 | Harold Keith Crain | I20697 | 6344 |
| 7590 | 04/18/2007 | | EXAMINER | |
| John S. Beulick Armstrong Teasdale LLP Suite 2600 One Metropolitan Sq. St. Louis, MO 63102 | | | AFZALI, SARANG | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3726 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE | | |
| 3 MONTHS | 04/18/2007 | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | |
|------------------------------|----------------------------------|-------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/600,282 | CRAIN ET AL. |
| | Examiner Sarang Afzali | Art Unit 3726 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on Amendment filed 2/20/2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 11-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 June 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed on 02/20/2007 has been fully considered and made of record.
2. The indicated allowability of claims 11-20 is withdrawn in view of the newly discovered reference(s) to Umemura et al. (US 5,871,234) and Thro et al. (US 4,650,436). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Umemura et al. (US 5,871,234).

As applied to claim 11, Umemura et al. teach a tool (1, Fig. 1) including:

a blade engagement end (annular ring core bar 3, Fig. 1) configured to engage the plurality of rotor blades between the rotor disc and the radially outer blade tip, said blade engagement end comprising an engagement top surface;

at least one brace (spoke core bars 5 and 8, Fig. 1) coupled to the blade engagement end (annular ring core bar 3, Fig. 1) at a first end of the at least one brace; and

a guide end (boss core bar 4, Figs. 1 & 5) coupled to a second end of the at least one brace, said guide end comprising a body including a guide end top surface positioned above said engagement top surface.

Note that Umemura et al. tool only needs to engage more than one rotor blade in order to meet the claim limitation of "plurality of rotor blades" and it is clear that, if needed, one may be able to manipulate the tool of Umemura et al. by holding it in an angle and/or different orientation in order to engage at least couple of rotor blades, if not more.

As applied to claim 12, Umemura teach blade engagement end (annular ring core bar 3, Fig. 1) has a circular cross-section.

As applied to claim 13, Umemura et al. teach the blade engagement end (annular ring core bar 3, Fig. 1) comprising a body including a central opening extending therethrough, said body comprising an engagement face configured to contact each of the plurality of blades between the dovetails and the mid-span dampers during a blade installation process (Figs. 1 & 5).

As applied to claim 14, Umemura et al. teach blade engagement end (annular ring core bar 3, Fig. 1) includes a pad (synthetic resin layers 14, Fig. 1, col. 4, lines 13-16) coupled to the engagement face.

As applied to claim 15, Umemura et al. teach pads (synthetic resin layers 14) have second hardness number.

As applied to claim 16, Umemura et al. teach the engagement end (annular ring core bar 3, Fig. 1) has a first rifled engagement side configured to conform to what it needs to install.

As applied to claim 17, Umemura et al. teach that at least one brace (spoke core bars 5 and 8, Fig. 1) is configured to maintain the engagement end (annular ring core bar 3, Fig. 1) in alignment with guide end (boss core bar 4, Figs. 1 & 5) during the installation process.

As applied to claim 18, Umemura et al. teach the guide end (boss core bar 4, Figs. 1 & 5) has a body that includes a central opening therethrough sized to receive a guide shaft (shaft 40, Fig. 5) therethrough.

As applied to claim 19, Umemura et al. teach the guide end (boss core bar 4, Figs. 1 & 5) and guide shaft (shaft 40, Fig. 5) are slidingly coupled to each other.

As applied to claim 20, Umemura et al. teach the tool (1, Fig. 1) is capable of being manually rotated during installation by means of the handle (any of the spoke core bars 5 and 8, Fig. 1).

Note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus, Umemura et al. is capable of performing the intended use and therefore meet the claimed invention.

5. Claims 11-13 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Thro et al. (US 4,650,436).

As applied to claim 11, Thro et al. teach a tool (10, Figs. 1 & 2) including:

a blade engagement end (annular inset 31, Fig. 2) configured to engage the plurality of rotor blades between the rotor disc and the radially outer blade tip, said blade engagement end comprising an engagement top surface;

at least one brace (radial arms 16-19, Fig. 1 & 2) coupled to the blade engagement end at a first end of the at least one brace; and

a guide end (hub 28, Figs. 1 & 2) coupled to a second end of the at least one brace, said guide end comprising a body including a guide end top surface positioned above said engagement top surface.

Note that Thro et al. tool only needs to engage more than one rotor blade in order to meet the claim limitation of "plurality of rotor blades" and it is clear that, if needed, one may be able to manipulate the tool of Thro et al. by holding it in an angle and/or different orientation in order to engage at least couple of rotor blades, if not more.

As applied to claim 12, Thro et al. teach blade engagement end (annular inset 31, Fig. 2) has a circular cross-section.

As applied to claim 13, Thro et al. teach the blade engagement end (annular inset 31, Fig. 2) comprising a body including a central opening extending therethrough, said body comprising an engagement face configured to contact each of the plurality of

blades between the dovetails and the mid-span dampers during a blade installation process (Figs. 1 & 2).

As applied to claim 16, Thro et al. teach the engagement end (annular inset 31, Fig. 2) has a first rifled engagement side configured to conform to what it needs to install.

As applied to claim 17, Thro et al. teach that at least one brace (radial arms 16-19, Fig. 1 & 2) is configured to maintain the engagement end (annular inset 31, Fig. 2) in alignment with guide end (hub 28, Fig. 2) during the installation process.

As applied to claim 18, Thro et al. teach the guide end (hub 28, Fig. 2) has a body that includes a central opening (opening in hub 28, Fig. 2) therethrough sized to receive a guide shaft (shaft 12, Fig. 2) therethrough.

As applied to claim 19, Thro et al. teach the guide end (hub 28, Fig. 2) and guide shaft (shaft 12, Fig. 2) are slidingly coupled to each other.

As applied to claim 20, Thro et al. teach the tool (10, Fig. 1) is capable of being manually rotated during installation by means of the handle (any of the radial arms 16-19, Fig. 1 & 2).

Note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus, Thro et al. is capable of performing the intended use and therefore meet the claimed invention.

Response to Arguments

6. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's Amendment to the Specification including abstract and title is accepted.

Applicant's canceling of claims 1-10 is accepted.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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4/10/2007



DAVID P. BRYANT
SUPERVISORY PATENT EXAMINER

4/16/07